

8

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/502,385	TSOI, VADIM	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael V. Datskovskiy	2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/23/2004.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 07/23/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

**MICHAEL DATSKOVSKIY**  
**PRIMARY EXAMINER**

*Michael Datskovskiy* 01/24/06

**REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: Claims 1-21 are allowable over the prior art of record for at least the reason that the prior art fails to teach or suggest: A method of cooling a cabinet (5W containing heat dissipating electronic components (PBA), comprising the steps of: circulating cooling medium in a closed fluid system to absorb heat in an evaporator in the cabinet and to transfer the absorbed heat from the cabinet and to emit said heat outside the cabinet in a condenser/heat exchanger, detecting the evaporator temperature (T1) inside the cabinet to determine the heat load on the system, detecting the ambient temperature (T3) and the temperature (T2) in the condenser to determine the conditions of the heat transfer from the cooling medium, controlling a forced circulation of the cooling medium based on the detected heat load and conditions of heat transfer, controlling the flow of the cooling medium back to the evaporator in the cabinet based on the detected heat load and conditions of heat transfer, and controlling the activation/deactivation of a vapor compression cycle based on the detected heat load and conditions of heat transfer, thereby allowing a controlled shifting between cooling of the cabinet in different cooling modes optimized for different heat load and heat transfer conditions (claims 1-11); . or a cooling system for cooling a cabinet containing heat dissipating electronic components (PBA), comprising: means for circulating a cooling medium in a closed fluid system from a condenser/heat exchanger to an evaporator inside the cabinet and back to the condenser/heat exchanger (14); at least one valve for controlling the flow of cooling medium between the condenser and the evaporator, an ejector having a primary

Art Unit: 2835

and a secondary side; a fluid line system connecting the condenser to the evaporator and to a fluid pump, respectively, through first and second controlled valves and connecting the evaporator to the fluid pump and the ejector secondary side, respectively, through third and fourth controlled valves; temperature sensors for detecting the evaporator temperature(T1), for detecting the condenser temperature (T2) and for detecting the ambient temperature (Ta), respectively, and a control unit for controlling the positions of the valves in dependence on the detected temperatures.(claims 12-21).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Sloan et al (US Patent 6,854,514); Mizuno (US Patent 5,174,364); Koizumi et al (US Patent 5,323,847); Rohner (US Patent 4,546,619); Porter (US Patent 5,365,749); Zuo et al (US Patent Application Publication 2003/0030981A1); Baer (US Patent Application Publication 2001/0042616A1); Yuzuta (Japan Patent JP352058147A) and Jung et al (Korean Patent KR 2001108737A).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Datskovskiy whose telephone number is (571) 272-2040. The examiner can normally be reached on 8-4:30.

Art Unit: 2835

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael V Datskovskiy  
Primary Examiner  
Art Unit 2835

01/24/2006